

Name: _____

Date: _____

FOIL when $A \neq 1$ solution (version 1)

FOIL the expressions shown below:

1. $(-6x - 9)(-3x + 2)$

$$\begin{aligned} &(-6)(-3)x^2 + (-6)(2)x + (-9)(-3)x + (-9)(2) \\ &(18)x^2 + (-12)x + (27)x + (-18) \\ &18x^2 + 15x - 18 \end{aligned}$$

2. $(-8x + 7)(4x - 7)$

$$\begin{aligned} &(-8)(4)x^2 + (-8)(-7)x + (7)(4)x + (7)(-7) \\ &(-32)x^2 + (56)x + (28)x + (-49) \\ &-32x^2 + 84x - 49 \end{aligned}$$

3. $(-4x + 3)(7x - 3)$

$$\begin{aligned} &(-4)(7)x^2 + (-4)(-3)x + (3)(7)x + (3)(-3) \\ &(-28)x^2 + (12)x + (21)x + (-9) \\ &-28x^2 + 33x - 9 \end{aligned}$$

4. $(-5x + 2)(2x + 7)$

$$\begin{aligned} &(-5)(2)x^2 + (-5)(7)x + (2)(2)x + (2)(7) \\ &(-10)x^2 + (-35)x + (4)x + (14) \\ &-10x^2 - 31x + 14 \end{aligned}$$

5. $(8x + 5)(2x - 9)$

$$\begin{aligned} &(8)(2)x^2 + (8)(-9)x + (5)(2)x + (5)(-9) \\ &(16)x^2 + (-72)x + (10)x + (-45) \\ &16x^2 - 62x - 45 \end{aligned}$$

FOIL the expressions shown below:

6. $(8x - 4)(3x - 6)$

$$\begin{aligned}(8)(3)x^2 + (8)(-6)x + (-4)(3)x + (-4)(-6) \\ (24)x^2 + (-48)x + (-12)x + (24) \\ 24x^2 - 60x + 24\end{aligned}$$

7. $(2x - 4)(-2x - 3)$

$$\begin{aligned}(2)(-2)x^2 + (2)(-3)x + (-4)(-2)x + (-4)(-3) \\ (-4)x^2 + (-6)x + (8)x + (12) \\ -4x^2 + 2x + 12\end{aligned}$$

8. $(-4x + 3)(-3x - 7)$

$$\begin{aligned}(-4)(-3)x^2 + (-4)(-7)x + (3)(-3)x + (3)(-7) \\ (12)x^2 + (28)x + (-9)x + (-21) \\ 12x^2 + 19x - 21\end{aligned}$$

9. $(-8x + 7)(6x - 8)$

$$\begin{aligned}(-8)(6)x^2 + (-8)(-8)x + (7)(6)x + (7)(-8) \\ (-48)x^2 + (64)x + (42)x + (-56) \\ -48x^2 + 106x - 56\end{aligned}$$

10. $(-4x - 2)(-7x - 7)$

$$\begin{aligned}(-4)(-7)x^2 + (-4)(-7)x + (-2)(-7)x + (-2)(-7) \\ (28)x^2 + (28)x + (14)x + (14) \\ 28x^2 + 42x + 14\end{aligned}$$